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EXAMINER

BRIER, JEFFERY A

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 04/13/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,359

Applicant(s)

TANAKA ET AL.

Examiner

Jeffery A Brier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-47 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 23-47 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. The amendment filed on 02/26/04 has been entered. It is noted applicant has cancelled patented claims 1-22.

Response to Arguments

2. Applicant's amendment to page 1, see page 2 and page 9 first paragraph, filed 02/26/04, with respect to the comments regarding the priority data have been fully considered and are persuasive. The priority data is now correct.
3. Applicant's arguments and amendments, see page 9 third paragraph, filed 02/26/04, with respect to the 35 USC 112 second paragraph rejection of claim 47, see page 9 third paragraph and page 13 first full paragraph have been fully considered and are persuasive. The 35 USC 112 second paragraph rejection of claim 47 has been overcome.
4. Applicant's arguments and amendments, see page 11 first paragraph, filed 02/26/04, with respect to the 35 USC 251 new matter rejection and 35 USC 112 first paragraph rejection of claims 25, 27, 34, 39 and 43 have been fully considered and are persuasive. The 35 USC 251 new matter rejection and 35 USC 112 first paragraph rejection of claims 25, 27, 34, 39 and 43 has been overcome.
5. Applicant's arguments, see page 12 first paragraph, filed 02/26/04, with respect to the 35 USC 251 new matter rejection and 35 USC 112 first paragraph rejection of claims 32, 38 and 42 and amendment to claim 32 have been fully considered and are persuasive. The 35 USC 251 new matter rejection and 35 USC 112 first paragraph rejection of claims 32, 38 and 42 have been withdrawn.

6. Applicant's arguments concerning the Offer to Surrender Patent filed 02/26/04 have been fully considered but they are not persuasive since the referenced form cannot be found in the file wrapper of this application.

7. Applicant's arguments concerning the 35 USC 251 new matter rejection and 35 USC 112 first paragraph rejection of claim 46 filed 02/26/04 at page 10 have been fully considered but they are not persuasive. Figure 19 shows VDn is a digital signal composed of high and low voltages. Figure 17 shows Vcom is a digital signal composed of high and low voltages. The Patent at column 2 lines 31-44 describes how the voltage across the liquid crystal material between the pixel electrodes and the common electrode is developed over time. The voltage driving the liquid crystal material is not VDn but a difference of VDn and Vcom. Thus, image signals VDn are not analog and the claimed analog image signals do not have support in the patented application.

8. Applicant's arguments concerning the 35 USC 251 new matter rejection and 35 USC 112 first paragraph rejection of claim 24 filed 02/26/04 at page 11 second paragraph have been fully considered but they are not persuasive. Claim 24 claims the one driver circuit is separate from said pair of substrates. Applicant argues the claim provides that the driver circuit is a separate member from that of a substrate. However, it is noted that the argued limitation is not recited in the rejected claim. The claim limitation "separate from" is much broader than the argued limitation "separate member from". Applicant needs to amend claim 24 to overcome the rejection.

9. Applicant's arguments concerning the 35 USC 251 recapture found in the paragraph spanning pages 13 and 14 filed 02/26/04 have been fully considered but they

are not persuasive. Applicant refers to Ex parte Eggert, 67 USPQ2d 1716 (Bd. Pat. App. & Int. 2003) and alleges the Examiner failed to follow the rule decided by Eggert in the recapture rejection. The recapture rejection found at pages 11-17 of paper no. 9 followed the Patent Office's revised guidelines for analyzing recapture and these guidelines are based upon Pannu and Eggert.

In response to applicants allegation that Eggert allows for an intermediate scope of protection between the scope of the issued claim and the scope of the rejected claim and the allegation that this reissue is claiming an intermediate scope of protection the Examiner notes the issue in the Patent for patented claim 1 was where on the substrate the driver circuit was located and for patented claim 22 was the limitations found at lines 20-27 of patented claim 22.

Patented claim 1:

Applicant amended and argued the driver circuit was located on the substrate in a region which is not held between the pair of substrates. Applicant is now claiming the driver circuit is electrically connected to the peripheral circuit and is not limited to formed on the substrate. Pending claims 23-31 and 47 claim the location of the currently claimed driver circuit and the patented driver circuit are both outside of a region which is held between said pair of substrates. Pending claims 38-46 do not claim any location for the driver circuit. The location of the currently claimed driver circuit is not intermediate between the Patent's rejected claim (formed on the substrate) and the Patent's allowed claim (formed on a substrate outside of region held between the pair of substrates) because the location of the driver circuit is not currently claimed to be

located intermediate between being located on the substrate and being located on the substrate outside of region held between the pair of substrates. The omitted limitation of *formed on a substrate* was replaced with *electrically connected*. *Electrically connected* is not related to *formed on a substrate* and *electrically connected* is not a broader version of *formed on a substrate* because the latter gives a specific location where the driver circuit is placed while the former does not tell where the driver circuit is placed.

Patented claim 22:

During prosecution of the patent, applicant amended claim 19/2/1 into independent form to form new claim 24, now patented claim 22. In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. The original Patent application's claim 24 (now patented claim 22) has all of the limitations of claim 19/2/1. Applicant wrote in the patent application's 11/7/97 amendment on page 6 "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". The limitations found in patented claim 22 which led to its allowance are not found in currently pending claims 23-47. The limitations replacing the omitted limitations are not related to the omitted limitations and they are not broader versions of the omitted limitations.

10. Applicant's arguments concerning the 102(e) rejection based upon Mochizuki et al. U.S. Patent No. 5,247,375 found in the whole paragraph on page 15 filed 02/26/04 have been fully considered but they are not persuasive. A circuit for driving circuits 19A

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and 19B are required to provide the image signal in Mochizuki for the same reasons applicants image signal drive circuit 21 provides signals to driving circuits 51 and 52.

11. Applicant's arguments concerning the 102(e) rejection based upon Misawa et al. U.S. Patent No. 5,250,931 found in the paragraph spanning pages 15-16 filed 02/26/04 have been fully considered but they are not persuasive. The Examiner accepts applicants characterization of Misawa as having a corresponding sized substrate (not shown) to the substrate 11 is provided and that driver circuits 12 and 21 are arranged between the substrate 11 and the another substrate. As stated by the examiner in paper no. 9 at page 23 a driving circuit is inherently present to provide the signals to input terminals 34, 35, 36, 37 and 38 because without such a circuit there would be no input signals. The term driving circuit is a very broad term and is met by the circuit that sends the signals to the input terminals 34, 35, 36, 37 and 38.

Original Patent

12. The original patent, or an affidavit or declaration as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178. The offer to surrender the original patent is noted. 37 CFR 1.178 states:

§ 1.178 Original patent; continuing duty of applicant.

(a) The application for a reissue should be accompanied by either an offer to surrender the original patent, or the original patent itself, or if the original is lost or inaccessible, by a statement

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to that effect. The application may be accepted for examination in the absence of the original patent or the statement, but one or the other must be supplied before the application is allowed. If a reissue application is refused, the original patent, if surrendered, will be returned to applicant upon request.

(b) In any reissue application before the Office, the applicant must call to the attention of the Office any prior or concurrent proceedings in which the patent (for which reissue is requested) is or was involved, such as interferences, reissues, reexaminations, or litigations and the results of such proceedings (see also § 1.173(a)(1)).

[24 FR 10332, Dec. 22, 1959; 34 FR 18857, Nov. 26, 1969; revised, 65 FR 54604, Sept. 8, 2000, effective Nov. 7, 2000]

New Matter

13. Claims 24 and 46 are rejected under 35 U.S.C. 251 as being based upon new matter added to the patent for which reissue is sought. The added material which is not supported by the prior patent is as follows:

In claim 46 applicant claims "analog image signals". The original specification described image signals but it did not describe analog image signals. The specification did not describe what the gray scale voltage generating circuit 410 generated and the specification did not describe what type of image signal the driver circuit 21 generates. The driver circuit could in response to gray scale voltage produce either analog or digital image signals since the image signal could be either be amplitude modulated (analog) or temporally modulated (digital). Figure 19 shows VDn is a digital signal composed of high and low voltages. Figure 17 shows Vcom is a digital signal composed of high and

low voltages. The Patent at column 2 lines 31-44 describes how the voltage across the liquid crystal material between the pixel electrodes and the common electrode is developed over time. The voltage driving the liquid crystal material is not VDn but a difference of VDn and Vcom. Thus, image signals VDn are not analog and the claimed analog image signals do not have support in the patented application.

In claim 24 the driver circuit is claimed to be separate from the pair of substrates. This was not described by the original specification. Figures 9 and 10 clearly show driver circuit 21 formed on substrate 10 and column 10 lines 16-19 and 34-45 describes how driver circuit 21 is formed onto substrate 10 by COG technology.

Claim Rejections - 35 USC § 112 - First Paragraph

14. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15. Claims 24 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention for the same reasons given in the above new matter rejection under 35 USC 251.

Recapture

16. Claims 23-47 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

Using the three step test it is seen recapture has occurred. The steps are as follows: Step 1. Determine whether, and in what aspect(s), the reissue claims are broader than the patent claim. Step 2. Determine whether the broader aspect(s) of the reissued claims relate to surrendered subject matter. Step 3. Determine whether the reissued claims were materially narrowed in other respects to avoid the recapture rule. *Pannu*, 258 F.3d at 1371, 59 USPQ2d 1600. *Ex parte Eggert*, 67 USPQ2d 1716 (Bd. Pat. App. & Int. 2003).

Claims 23-31 and 47:

Claim 23 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 7-14 of pending claim 23 which does not have the limitations argued by applicant in the sentence spanning pages 10 and 11 and the second sentence on page 11, lines 8-11 and on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment. Reissue claim 23 is broader than patented claim 1 because in claim 23 the driver circuit is arranged outside of a region which is held between said pair of substrates. The broadened portion of claim 23 corresponds to surrendered subject matter because patented claim 1 was amended to claim the driver circuit to be formed on one substrate of said pair of substrates in a driver integrated circuit region which is not held between said pair of substrates in order to overcome the prior art of record. Reissue claim 23 was not materially narrowed in the area of surrender because claim 23 places the driver circuit at any location other than between the substrates and patented claim 1 formed the driver circuit on one of the pair of substrates. The currently claimed location of the driver circuit is very broad. Thus, this replacement limitation of broadened claim 23 does not relate to the limitation added to patented claim 1 to define over the prior art of record. Thus, the reason for allowing patented claim 1 is not present in pending claim 23. The omitted limitation of *formed on a substrate* was replaced with *electrically connected*. *Electrically connected* is not related to *formed on a substrate* and *electrically connected* is not a broader version of *formed on a substrate*

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because the latter gives a specific location where the driver circuit is placed while the former does not tell where the driver circuit is placed.

Claim 23 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 7-14 of pending claim 23 which does not have the limitations argued by applicant as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. The original Patent application's claim 24 (now patented claim 22) has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. The broadened portion of claim 23 corresponds to surrendered subject matter because lines 13-23 of patented claim 22 are not present in broadened claim 23. The replacement limitations of broadened claim 23 do not relate to the limitations added to patented claim 22 to define over the prior art of record. Thus, the reason for allowing patented claim 22 is not present in pending claim 23. The limitations found in patented claim 22 which led to its allowance are not found in the currently pending claim 23. The limitations replacing the omitted limitations are not related to the omitted limitations and they are not broader versions of the omitted limitations.

Claim 24 fails to claim a subject matter to the allowance of patented claim 1 for the reasons given for parent claim 23 and because it claims that the "driver circuit is separate from said pair of substrates". Patented claims 1 and 22 claimed the driver circuit is either formed (claim 1) or bonded (claim 22) on at least one substrate.

Claim 25-31 and 47 similarly do not add to claim 23 the claim limitations related to the surrendered limitations that were added to the patented claims to overcome the prior art of record.

Claims 32-37:

Claim 32 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 7-10 of pending claim 32. The replaced lines do not have the limitations argued by applicant in the sentence spanning pages 10 and 11 and the second sentence on page 11, lines 8-11 and on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment. Thus, these replacement limitations of broadened claim 32 do not relate to the limitations added to patented claim 1 to define over the prior art of record. Thus, the reason for allowing patented claim 1 is not present in pending claim 32. The omitted limitation of *formed on a substrate* was replaced with *electrically connected*. *Electrically connected* is not related to *formed on a substrate* and *electrically connected* is not a broader version of *formed on a substrate*

because the latter gives a specific location where the driver circuit is placed while the former does not tell where the driver circuit is placed.

Claim 32 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 7-10 of pending claim 32 which does not have the limitations argued by applicant as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. The original Patent application's claim 24 (now patented claim 22) has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. The broadened portion of claim 32 corresponds to surrendered subject matter because lines 13-23 of patented claim 22 are not present in broadened claim 32. The replacement limitations of broadened claim 32 do not relate to the limitations added to patented claim 22 to define over the prior art of record. Thus, the reason for allowing patented claim 22 is not present in pending claim 32. The limitations found in patented claim 22 which led to its allowance are not found in currently pending claim 32. The limitations replacing the omitted limitations are not related to the omitted limitations and they are not broader versions of the omitted limitations.

Claims 33-37 do not add to claim 32 the claim limitations related to the surrendered limitations that were added to the patented claims to overcome the prior art of record.

Claims 38-41:

Claim 38 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 7-10 of pending claim 38. The replaced lines do not have the limitations argued by applicant in the sentence spanning pages 10 and 11 and the second sentence on page 11, lines 8-11 and on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment. Thus, these replacement limitations of broadened claim 38 do not relate to the limitations added to patented claim 1 to define over the prior art of record. Thus, the reason for allowing patented claim 1 is not present in pending claim 38. The omitted limitation of *formed on a substrate* was replaced with *electrically connected*. *Electrically connected* is not related to *formed on a substrate* and *electrically connected* is not a broader version of *formed on a substrate* because the latter gives a specific location where the driver circuit is placed while the former does not tell where the driver circuit is placed.

Claim 38 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 7-10 of pending claim 38 which does not have the limitations argued by applicant

as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. The original Patent application's claim 24 (now patented claim 22 has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. The broadened portion of claim 38 corresponds to surrendered subject matter because lines 13-23 of patented claim 22 are not present in broadened claim 38. The replacement limitations of broadened claim 38 do not relate to the limitations added to patented claim 22 to define over the prior art of record. Thus, the reason for allowing patented claim 22 is not present in pending claim 38. The limitations found in patented claim 22 which led to its allowance are not found in currently pending claim 38. The limitations replacing the omitted limitations are not related to the omitted limitations and they are not broader versions of the omitted limitations.

Claims 39-40 do not add to claim 38 the claim limitations related to the surrendered limitations that were added to the patented claims to overcome the prior art of record.

Claims 42-46:

Claim 42 differs from patented claim 1 in a matter germane to the allowance of patented claim 1 as follows: applicant replaced lines 8-20 of patented claim 1 with lines 7-10 of pending claim 42: The replaced lines do not have the limitations argued by applicant in the sentence spanning pages 10 and 11 and the second sentence on page 11, lines 8-11 and on page 12 second paragraph to page 13 last paragraph of the patent application's 11/7/97 amendment. Thus, these replacement limitations of broadened claim 42 do not relate to the limitations added to patented claim 1 to define over the prior art of record. Thus, the reason for allowing patented claim 1 is not present in pending claim 42.

Claim 42 differs from patented claim 22 in a matter germane to the allowance of patented claim 22 as follows: applicant replaced lines 7-23 of patented claim 22 with lines 7-10 of pending claim 42. The replaced lines do not have the limitations argued by applicant as being allowable on page 6 of the patent application's 11/7/97 amendment. On page 6 applicant wrote "Thus, applicants submit that claim 24 corresponding to claim 19 written in independent form should now be in condition for allowance". In the original patent application's first office action the examiner indicated that claim 19/2/1 would be allowable in rewritten in independent form. Claim 24 has all of the limitations of claim 19/2/1. Patented claim 22 has the limitation of claims 2 and 19 at lines 7-23. The broadened portion of claim 42 corresponds to surrendered subject matter because lines 13-23 of patented claim 22 are not present in broadened claim 42. The replacement limitations of broadened claim 42 do not relate to the limitations added

to patented claim 22 to define over the prior art of record. Thus, the reason for allowing patented claim 22 is not present in pending claim 42. The limitations found in patented claim 22 which led to its allowance are not found in currently pending claim 42. The limitations replacing the omitted limitations are not related to the omitted limitations and they are not broader versions of the omitted limitations.

Claims 43-46 do not add to claim 42 the claim limitations related to the surrendered limitations that were added to the patented claims to overcome the prior art of record.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 23-27, 32-34, 38, 39, 42, 43, 46 and 47 are rejected under 35

U.S.C. 102(e) as being anticipated by Mochizuki et al U.S. Patent No. 5,247,375.

Mochizuki teaches display area transistors and peripheral circuit transistors. Inherently

Mochizuki teaches a driving circuit on a substrate external to the display substrate.

The following side by side analysis of claim 23 and Mochizuki illustrates how Mochizuki anticipates applicant's claims.

Pending claim 23	Mochizuki et al U.S. Patent No. 5,247,375
23. A liquid crystal display apparatus comprising:	Figures 1A and 1B.
a pair of substrates, at least one of which is transparent;	Lower glass substrate 10A and upper glass substrate 10B. Also note column 5 lines 33-35.
a liquid crystal layer formed by sandwiching a liquid crystal composition between said pair of substrates;	The liquid crystal material 14 is sandwiched between the two substrates as seen in figure 9.
a display region having a plurality of first semiconductor elements which are arranged in a matrix on one substrate of said pair of substrates;	Figure 1B.
at least one peripheral circuit having a plurality of second semiconductor elements arranged at a periphery of said display region, said at least one peripheral circuit being formed on said one substrate of said pair of substrates and at least one part of said at least one peripheral circuit being arranged in a peripheral circuit region which is held between said pair of substrates; and	Figure 1B illustrates data drive circuit area 19A and scan drive circuit 19B between both of the glass substrates.
at least one driver circuit which is electrically connected to said at least one peripheral circuit for driving said at least one peripheral circuit being arranged outside of a region which is held between said pair of substrates.	Inherently Mochizuki teaches a driving circuit on a substrate external to the display substrate for providing signals to the data drive circuit area 19A and scan drive circuit 19B.

Claim 24:

The driver circuit of Mochizuki is on one substrate, thus, it is separate from said pair of substrates.

Claims 25 and 27:

Claims 25 and 27 claim annealing a portion which is taught at column 9 lines 28-47 and column 10 line 53 which refers to laser annealing of the driver circuit being different than the laser annealing of the scanning circuit described in the preceding description at column 9 line 41 to column 10 line 50.

Claim 26:

Liquid crystals are generally driven with amplitudes no greater than about 5V.

Claim 32:

This claim is broader than claim 23 and is rejected for the reasons given for claim 23. The claimed switch matrix is broadly claimed and is met by drive circuit 13 illustrated in figure 1B as a switch matrix.

Claim 33:

Scanning circuit 12 is shown in Figure 1A as being formed on one substrate of the pair of substrates.

Claim 34:

Claim 34 claims annealing a portion which is taught at column 9 lines 28-47 and column 10 line 53 which refers to laser annealing of the driver circuit being different than the laser annealing of the scanning circuit described in the preceding description at column 9 line 41 to column 10 line 50.

Claim 38:

This claim is broader than claim 23 and is rejected for the reasons given for claim 23. The claimed switch matrix is broadly claimed and is met by drive circuit 13 illustrated in figure 1B as a switch matrix. The display information generating circuit is inherent.

Claim 39:

Claim 39 claims annealing a portion which is taught at column 9 lines 28-47 and column 10 line 53 which refers to laser annealing of the driver circuit being different than the laser annealing of the scanning circuit described in the preceding description at column 9 line 41 to column 10 line 50.

Claim 42:

This claim is broader than claim 23 and is rejected for the reasons given for claim 23. The claimed switch matrix is broadly claimed and is met by drive circuit 13 illustrated in figure 1B as a switch matrix. Generating clock pulses and image signals is inherent.

Claim 43:

Claim 43 claims annealing a portion which is taught at column 9 lines 28-47 and column 10 line 53 which refers to laser annealing of the driver circuit being different than the laser annealing of the scanning circuit described in the preceding description at column 9 line 41 to column 10 line 50.

Claim 46:

Figure 1B shows data drive circuit 13 with switching transistors which are selected to momentarily switch a video signal onto a column corresponding to that portion of the video signal. Thus, the signal switched by the switching transistor is analog since that signal is being applied directly to the column line. Thus, the driver circuit provides an analog image signal.

Claim 47:

Liquid crystals are generally driven with amplitudes no greater than about 3V.

19. Claims 23, 24, 26, 32, 33, 38, 42, 46, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Misawa et al U.S. Patent No. 5,250,931. Misawa teaches display area transistors and peripheral circuit transistors. Inherently Misawa teaches a driving circuit on a substrate external to the display substrate.

The following side by side analysis of claim 23 and Misawa illustrates how Misawa anticipates applicant's claims.

Pending claim 23	Misawa et al U.S. Patent No. 5,250,931
23. A liquid crystal display apparatus comprising:	Column 4 lines 4-10.
a pair of substrates, at least one of which is transparent;	Figure 3B, transparent substrate 98 and substrate 86. Column 7 lines 5-8.
a liquid crystal layer formed by sandwiching a liquid crystal composition between said pair of substrates;	The liquid crystal material 96 is sandwiched between the two substrates as seen in figure 3B. Column 7 lines 5-8.
a display region having a plurality of first semiconductor elements which are arranged in a matrix on one substrate of said pair of substrates;	Figure 1B.
at least one peripheral circuit having a plurality of second semiconductor elements arranged at a periphery of said display region, said at least one peripheral circuit being formed on said one substrate of said pair of substrates and at least one part of said at least one peripheral circuit being arranged in a peripheral circuit region which is held between said pair of substrates; and	Column 11 lines 30-32 describes the source lines of the source driver circuit 160 as running between the top and bottom panel 160, thus, Misawa teaches a portion of the driver circuit is held between the pair of substrates forming panel 160.
at least one driver circuit which is electrically connected to said at least one peripheral circuit for driving said at least one peripheral circuit add being arranged outside of a region which is held between said pair of substrates.	Inherently Misawa teaches a driving circuit for driving the source line driver 12 and gate line driver 21, see figure 1 which illustrates where the driving circuit connects the source line driver and gate line driver at input terminals 34, 35, 36, 37 and 38. Column 5 lines 5-13.

Claim 24:

The driver circuit of Misawa is on one substrate, thus, it is separate from said pair of substrates.

Claim 26:

Liquid crystals are generally driven with amplitudes no greater than about 5V.

Claim 32:

This claim is broader than claim 23 and is rejected for the reasons given for claim 23. The claimed switch matrix is broadly claimed and is met by the switches 17-19 of source line driver 12 illustrated in figure 1 as a switch matrix.

Claim 33:

The source line driver circuit 12 of Misawa is on one substrate, thus, it is separate from said pair of substrates.

Claim 38:

This claim is broader than claim 23 and is rejected for the reasons given for claim 23. The claimed switch matrix is broadly claimed and is met by source line driver 12 illustrated in figure 1 as a switch matrix. The display information generating circuit is inherent to produce video signals V1, V2, V3, column 5 line 9.

Claim 42:

This claim is broader than claim 23 and is rejected for the reasons given for claim 23. The claimed switch matrix is broadly claimed and is met by source line driver 12 illustrated in figure 1 as a switch matrix. Misawa's driver circuit produces clock pulses, taught at column 5 line 7, and image signals, taught at column 5 line 9.

Claim 46:

Figure 1 shows source line driver circuit 12 with switching transistors 17-19 which are selected to momentarily switch a video signal V1, V2, V3 onto a column corresponding to that portion of the video signal. Thus, the signal switched by the switching transistor is analog since that signal is being applied directly to the source line. Thus, the driver circuit provides an analog image signal.

Claim 47:

Liquid crystals are generally driven with amplitudes no greater than about 3V.

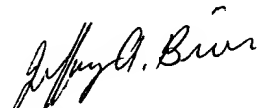
20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is 703-305-4723. The examiner can normally be reached on M-F from 6:30 to 3:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (703) 305-4713). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffery A Brier
Primary Examiner
Art Unit 2672